

produced by an excitation signal having a frequency between about 20 Hz and about 20,000 Hz; and

ii.) converting the fields resulting from the interactions of said excitation field and said ligand and/or receptor into signals by means of a first transducer or acquisition sensor receiving said resulting fields, wherein said signals are characteristic of the biological or chemical activity or behavior of said ligand and/or receptor

b.) bringing said ligand and said receptor of said ligand-receptor pair into contact in conditions suitable to allow their reaction; and

c.) applying said electromagnetic signal characteristic of the biological activity of at least one of said ligand or said receptor to at least one of said ligand or receptor, wherein said electromagnetic signal can be applied prior to, simultaneous with, or subsequent to said ligand and said receptor being brought into contact,

wherein said process amplifies the reaction at least in part by increasing the binding affinity properties of at least one of said two elements.

### Remarks

Claims 1-31 and 33-72 remain pending in the application. Claim 1 has been amended as shown above. The claims were amended to more fully clarify the invention. No new matter has been added by the amendments above. Favorable reconsideration is respectfully requested in light of the above amendments and the following comments.

The Examiner rejected claims 1-23 under 35 U.S.C. § 112, second paragraph. Applicants respectfully traverse this rejection.

The Examiner maintained the rejection of claims 1-23, and 28-31 under 35 U.S.C. § 102(a) as being anticipated by Benveniste et al. (FASEB J., March 17, vol. 12(4); pp A412, 1998) ("Benveniste I"). Applicants respectfully traverse this rejection.

The Examiner maintained the rejection of claims 1-23, 28-35, 42-64, and 69-72 under 35 U.S.C. § 102(b) as being anticipated by Benveniste et al. (J. Allergy Clin Immunol., vol. 99(1), part 2, pp S175, 1997) ("Benveniste II"). Applicants respectfully traverse this rejection.

The Examiner maintained the rejection of claims 1-23 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,653,939 (Hollis et al.). Applicant respectfully traverses this rejection.